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February 24, 1994

FEDERAL COMMUNICATIONS COMMISSION OFFICE OF THE SECRETARY

Secretary Federal Communications Commission Washington, D.C. 20554

Re: Petitions for Reconsideration, Second Report & Order, GEN Docket 90-314

Dear Sir:

At page 5, note 5, of its Reply of January 13, 1994 in the above-captioned proceeding, the National Emergency Number Association referred to an article by J.A. Jones, Jr., an emergency medical training instructor in Lexington, Kentucky, whose publication in the February 1994 NENA News was pending. NENA undertook to supply the article for the record, and to the service list for its Reply Comments, when it appeared in print.

Mr. Jones' article, "Cellular Telephones and Emergency Service," now may be found at page 26 of the February NENA News. An original and 11 copies of the article are enclosed. Thank you for associating these, if possible, with NENA's January 13th Reply.

Sincerely, 2 R. Asto

James R. Hobson Counsel for NENA

Thomas P. Stanley, Chief Engineer cc: Jonathan D. Blake, Counsel for APC Robert M. Gurss, Counsel for APCO Charles J. Hinkle, Jr., KSI W. Scott McCullough, Counsel for TX-ACSEC Thomas A. Stroup, PCIA (formerly Telocator)

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ORIGINAL NENA*NEWS* 

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### **NENA's Mission:**

One Nation. . . One Number

NENA's mission is to foster the technological advancement, availability, and implementation of a universal emergency telephone number system. In carrying out its mission, NENA promotes research, planning, training and education. The protection of human life, the preservation of property and the maintenance of general community security are among NENA's objectives.

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One Nation 9-1-1 One Number

9-1-1 Exchange

New!

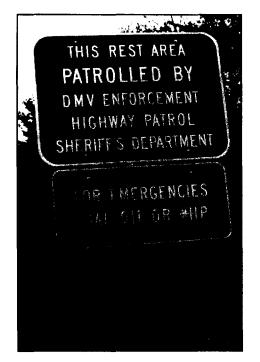
## Cellular Telephones and Emergency Service

by J. A. Jones, Jr.

Cellular telephones give fire, police and EMS a great increase in the number of "eyes and ears" on the roadways of North America. NENA has long known about this benefit as well as the problems of cellular caller location, jurisdiction, and call back number. This is just the tip of the iceberg when dealing with cellular telephones and emergency services.

The examples which follow will address jurisdiction boundaries vs. receiving tower site, 9-1-1 call transfer, and the deliberate lockout of 9-1-1 calls by some cellular carriers. Each one of these areas by itself can be a problem. I encountered each one of these in a four month period of time in several jurisdictions and cellular markets. I believe there is a significant flaw in the cellular industry and access to emergency services.

Case number one occurred when I came upon a one car accident on I-64, about five miles inside Kentucky from its border with West Virginia. I dialed 9-1-1. My call was answered by a Bell System operator in Charleston, WV. I asked to be connected to





the Kentucky State Police Post (KSP) in Ashland, KY. The C&P Telephone operator advised me she could not transfer the call as requested because the call would cross the L.A.T.A. (Local Access and Transport Area assigned by Judge Greene of AT&T divestiture fame) boundary.

This shocked me. She transferred my call to AT&T. The AT&T operator wanted me to supply the number for KSP Ashland as well as billing information. I was stunned at the request for billing information for a 9-1-1 call. Back to the local Bell System. I then asked to be transferred to the WV State Police. I asked the dispatcher there to relay the information about the accident via NCIC to KSP Ashland. The dispatcher indicated he would transmit the information via a two-way radio link. The connection was made and appropriate assistance arrived shortly.

The second situation occurred while I was sitting in my parents' back yard. I arrived early and they were out on an errand. The house was locked. While I sat on the patio, I saw what appeared to be a robbery/burglary in progress. A call to 9-1-1

was answered at the local State Police Post. I asked to be transferred to the city police since I was in their jurisdiction. This brought about a startling reply from the "dispatcher." "You can dial them direct," was his advice.

"But this is a 9-1-1 call," I replied.

"Hold on a minute." After a pause, the "dispatcher" returned to the line and responded, "I will transfer you now but we are not supposed to (transfer calls to the city police)."

Ihad previously toured the county E9-1-1 PSAP where my parents live. Dispatchers on duty had explained that a 9-1-1 call received via a cellular tower located in the county would be delivered to the county PSAP. The cellular system was set up locally, the dispatchers explained, to provide the tower location in the ALI field. This was certainly not what happened to my call from my parents' back yard.

I went on to ask several questions of the state police, the cellular carrier, the city police, and the PSAP regarding the call placed from my parents' yard. This is what I learned:

1. The cellular carrier translated my call

to the KSP seven digit number. There was documentation from the audit journal indicating tower site, my cellular number and ESN, the seven digit destination for 9-1-1, and the duration. The cellular carrier stated that all cellular 9-1-1 calls are handled this way and none are sent to the county PSAP as the PSAP telecommunicators believed.

- 2. According to the post commander, the dispatchers working at the time of the call were all female. I was certain I was speaking to a male. There was no record of the call being received by the post.
- 3. The city police dispatch log did not indicate the origin of the call but automatic time entry on the CAD showed the call received during the same span of time as documented by the cellular carrier's audit trail.

The third situation I encountered involved another one car accident with very serious injuries necessitating a university helicopter trauma service to be called to the scene. No one present knew if help was on the way. Back to the cellular phone. Many frustrating attempts to reach 9-1-1 or \*9-1-1 were met with unfamiliar telephone tones. After several more tries, I dialed the 800 number for KSP. That call was met with the same tones. I tried all three numbers again with no luck.

I switched from the "B" system to the "A" system and tried my numbers again. 9-1-1 and \*9-1-1 were transmitted several times. The cellular network responded with a different set of tones, a "zip-ping." Then I tried 1-800-222-5555 (the KSP statewide emergency number). My call rang, but was intercepted by a credit card roaming service. I explained the situation to the attendant. He stated he could not dial 1-800 numbers. He extended the call to the regional Bell company. They did not have listings for the city where the nearby state police post was located. This meant another transfer to another operator. I questioned the non-Bell operator, "Are you in the same city as the state police post?" "YES."

I requested the operator pass the call to a supervisor. I asked that she call the state police. I explained the problem and the emergency response needed. She assured me she would contact the state police. After 20 minutes on the phone, HELP WAS FINALLY ON THE WAY!

I questioned why it had been so difficult to reach a dispatcher with an emergency service to report this serious accident. Why

didn't my "B" system call go through? Answer: about two miles from the scene is an extender tower on the "B" system designed to prevent calls in progress on the parkway from being "dropped." This extender has only four voice channels. One state police dispatcher at the west end of the parkway stated he received 40 or 50 calls reporting the accident. Bottom line — all channels busy on the "B" system.

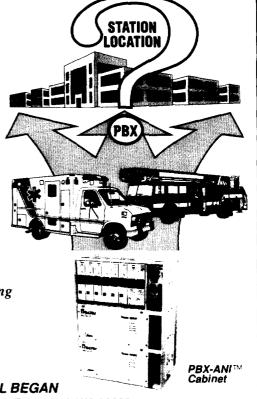
The answer to my next question shocked me. I asked why the 9-1-1 calls over the "A" carrier did not process. Initially, customer service for the "A" carrier in that market blamed user error and atmospheric conditions. Finally, the representative admitted ignorance of any reason a 9-1-1 call would not go through. I asked for a technician, who stated that 9-1-1 calls originating from a phone served by a carrier without a billing agreement with that "A" carrier WERE DELIBERATELY BLOCKED. Why? Because people buy cellular phones at garage sales and flea markets, put the phone in their cars, dial 9-1-1, and think they have free 9-1-1 service. That "A" system cellular carrier's technician stated their only responsibility is to authorized users. An authorized user is a phone either subscribed to A service, or subscribed to a distant service but the two carriers have



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billing (roaming) agreements. An unauthorized user is a phone which subscribes to a carrier that does not have a billing agreement with the carrier at the point of use, a phone not programmed with valid service codes, or a phone identified by its Electronic Serial Number (ESN) as stolen.

Appalled by this answer, I asked a technician with my own "B" carrier if they did the same (block 9-1-1 calls if there was no billing agreement). The answer again was a jolting yes. Why? Almost word for word the same reply about people, flea markets, 9-1-1, and free calls.

Cellular carriers' concern about authorized vs. unauthorized users has merit. Public safety interests also have merit. When 9-1-1 is dialed from a land line pair without local service, but connected to the central office, most local telco's connect the call to the PSAP in the interest of public safety. Why do cellular carriers work from a different set of public safety interests?

I've made a list of my concerns regarding cellular phones and emergency service:

- 1. No cellular carrier should obstruct or otherwise delay any call to the telephone number 9-1-1.
- 2. At the request of city, county, or state chiefs of police, fire or EMS, cellular carriers should make calls to these numbers "air time free."

- 3. No land line carrier should charge a cellular carrier "message unit fees" to deliver 9-1-1 or other emergency calls.
- 4. No cellular carrier should deliver a 9-1-1 call to an answering point which cannot transfer or dispatch for all jurisdictions in range of the tower site.
- 5. Cellular carriers and PSAP administrations should reprimand or prosecute criminally, any individuals using 9-1-1 to defraud the carrier of its rightful fees.
- Using a cellular phone, without a current service provider, for the sole purpose of summoning emergency assistance should be a form of theft of service.
- 7. Because cellular telephones have numbers in the same format (NPA-NNX-XXXX) as land line numbers, and because they are connected to the land line system, and because the prompt summoning of emergency assistance is in the best interest of the society, no person should advertise, distribute, or otherwise inform any portion of the citizens to use another number in place of 9-1-1 unless said person has the permission of the chiefs of police, fire, and EMS in all the jurisdictions affected as well as

- the state law enforcement agency (witness MOBILink and \*9-1-1).
- 8. Due to the life saving nature and image of 9-1-1, other alternate access numbers for highway patrol, DUI enforcement, and the Coast Guard should be arranged as air time free calls. Signs with these alternate numbers should be posted at the beginning of service areas. The North Carolina and South Carolina Highway Patrols have an access number posted in this manner. The number used in those two states is \*HP or \*4-7. This is in addition to 9-1-1.
- 9. Calls to 9-1-1 should be routed to the PSAP in the jurisdiction where the tower is located. The ability to transfer to other jurisdictions served by the tower site should be accessible. The last two points would serve as a reason to segregate motor vehicle related traffic from the life saving traffic associated with 9-1-1 calls. This would give two areas of access. Two different answering points would be available in times of emergency.
- 10. In some parts of the country, "user fees" or "special taxes" are levied to fund 9-1-1 outside of the general tax structure. Cellular phones are usually exempt. Cellular makes up a large

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portion of 9-1-1 calls. If cellular companies were willing to put in triangulation equipment for 9-1-1 automatic location identification (ALI) and automatic number identification (ANI), then these fees could be shared with the cellular provider, if real "expenses" could be demonstrated

11. All cellular phones have locks to prevent unauthorized use. Some phones will dial the number programmed into a specific memory when the phone is locked. Other phones will dial only 9-1-1 if locked. Some phones will not dial at all if locked. There needs to be a standardization of the locking feature and emergency access. What if a cellular knowledgeable emergency service worker without a cellular phone happens on an emergency where an operative but locked cellular phone is found. Can emergency assistance be contacted with that phone?

In summary, 9-1-1 and cellular phones can help the emergency services systems of our continent (both the U.S. and Canada use 9-1-1). This will work only when the cellular carriers, manufacturers and emergency services personnel sit down and put together a plan. The plan should work for the locality and be open so that travelers from other markets are not thwarted in their efforts to access emergency assistance.

I am aware that this article deviates from NENA's philosophy of "One Nation — One Number." I am not seeking to change the spirit or the mission of NENA. I am attempting to present a group of concerns about cellular and the new personal communications systems which need to be exposed. Lives should not be lost because the system did not work.

J. A. Jones is an EMT Instructor. He can be contacted at P.O. Box 23124, Lexington, KY 40523-3124; 606-273-4493.

### More on Cellular Telephones and 9-1-1

Ross Powell's "Alternate Routing Problem Solved by Cellular Telephones" is the first article to appear in our new column, 9-1-1 Exchange.

Become more active in NENA—send your questions, issues or solutions to: Julie White, Editor *NENA News*, 3280 Ainwick Rd., Columbus, Ohio 43221; Fax 614-459-0533.

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